The Bean Bag

A newsletter to promote communication among research scientists concerned with the systematics of the Leguminosae/Fabaceae

Number 48 November 2000

From the Editor

Barbara Mackinder

The Bean Bag is designed to promote communication among research scientists concerned with legume systematics. To achieve this goal *The Bean Bag* is issued in November of each year and features six columns: From the Editor, News (meetings, major events, announcements, etc.), Latin American Legume Report, Nodulation and Nitrogen Fixation (new nodulation records), Gleanings, and Recent Legume Literature. Data in the Gleanings column are derived from questionnaire sheets which Readers complete and return. If you have news about legume systematics, send it to us for this column. The Recent Legume Literature column contains published research papers of specific interest to Bean Bag Readers and is derived from Readers contributions in conjunction with references from The Kew Record (Kew's current awareness list of taxonomic literature). Recent is defined as up to 18 months old. Specific interest to Bean Bag Readers is defined as research papers of interest to a worldwide group of legume systematic botanists. Bean Bag Readers are encouraged to send notices, observations, etc.

The Bean Bag can be delivered to readers via e-mail. If you wish to have your copies e-mailed to you, please send an email message to the editor (email: **b.mackinder@rbgkew.org.uk**). Will new readers please provide their title, first and last names, full postal address and area(s) of interest.

Electronic copies of the current and past issues of Bean Bag and directories can be viewed on the World Wide Web server of the Royal Botanic Gardens, Kew, UK at **http://www.rbgkew.org.uk/herbarium/legumes/beanbag.html**

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NEWS

"Legumes Down Under"
Fourth International Legume Conference

Australian National University, Canberra, Australia, 2-6 July, 2001.

Mike Crisp

Scientific program
Planning for the conference is well advanced. A program of symposia has been planned (see below), and the organisers of each symposium are currently contacting potential speakers. Each symposium will include a mix of invited and contributed papers. A call for contributed papers will go out with the Registration Brochure, which will be mailed in February 2001. It may not be possible to accept all contributed papers; however, we will provide for large poster sessions

Highlights
We are pleased to announce that the leading Australian botanist, **Professor Adrienne Clark**, will deliver a public lecture on the evening of Tuesday, July 3rd, entitled "Risks and benefits from genetically modified crops".

The conference will commence with a plenary presentation synthesizing recent work by several collaborators on the **phylogeny of the family**. This will be the most detailed phylogenetic tree yet presented for the legumes. The research towards this presentation is being coordinated by Marty Wojciechowski of the University of California.

On Sunday, July 1st, there will be a **pre-conference social event**, combined with a conference art show, at the Australian Academy of Science in Canberra.

Field trips
We will offer a number of field trips, varying from a half day to several days:
- Cape York Peninsula, including wet tropics – Pre-Conference
- Central Australia – Post-Conference
- New South Wales Coastal – Post-Conference
- Western Australia "Acacia & Wildflowers" – 3 days Post-Conference
- Tidbinbilla Nature Reserve -- Wednesday July 4 – half day

Whether all these trips go ahead will depend upon sufficient delegates expressing interest.

Costs and accommodation
We are not yet able to announce registration fees and other costs, as these will depend upon the amount of sponsorship money that we are able to obtain. We have booked a range of accommodations from university halls of residence to five-star hotels. We will be able to offer limited assistance towards travel costs, depending upon the outcome of some grant applications. Concessional registration fees will be available to students. Announcements of these details will appear on the web site (URL on page 4) and in the Registration Brochure.

Canberra
Canberra is the national capital of Australia. It has a population of 310,000, and it is an important base for legume research and education. Canberra is also a beautiful city. Its character as a "city of light and space", a contemporary garden-city, makes it a major tourist destination. Attractions include its scenic landscapes, lakes, parks and hills, as well as its impressive public buildings, such as New Parliament House, the National Library, the National Gallery, the Australian War Memorial and the Australian Academy of Science. Canberra is only a 2-hour drive from either the Snowy Mountains or the South Coast of New South Wales. Though cool in July, Canberra's winter days are nearly always crisp and clear with sunny blue skies.

	Monday, July2		Tuesday, July 3		Wednesday, July 4	
	Session 1	Session 2	Session 1	Session 2	Session 1	Session 2
9:00-10:40	Convening Session **Phylogeny-Wojciechowski Biogeog – Crisp and Luckow** (MDC, JM)	none	Mimosoid Systematics (exclud Acacia) **Grimes & Luckow** (JG)	Symbiosis, Physiology& Rehabilitation **Sprent & Burdon** (MDC)	Papilionoid Systematics **Lavin, Klitgaard, Pennington, Weston** (MDC)	Biodiversity Information Resources **Bisby and Croft** (MDC)
Tea	Tea	Tea	Tea	Tea	Tea	Tea
11:10-12:50	Caesalps Systematics **Bruneau, Lewis & Herendeen** (MDC)	Phytochemistry Meurer-Grimes & van Wyk (JG)	Mimosoid Systematics (exclud Acacia)	Symbiosis, Physiology& Rehabilitation	Papilionoid Systematics	Electronic identification tools **De Kok & Ridder** (MDC)
Lunch	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
2:00-3:40	Caesalps Systematics	Phytochemistry	Acacia Systematics **Maslin & Miller** (JG)	Symbiosis, Physiology& Rehabilitation	Internet Café for keys and databases Free Time	
Tea	Tea	Tea	Tea	Tea		
4:00-5:20	Caesalps Systematics	Phytochemistry	Acacia Systematics	Symbiosis, Physiology& Rehabilitation		
Evening	5:30-6:30 Poster session		Public speaker: Prof Adrienne Clark, "Risks and benefits from GM crops"		Banquet	

	Thursday, July 5		Friday, July 6	
	Session 1	Session 2	Session 1	Session 2
9:00-10:40	Papilionoid Systematics (cont.)	Utilisation & Infraspecific Genetics **Williams, Doyle & Hughes** (JG)	Developmental and Structural Morphology **Singer & Tucker** (JG)	Legume/Animal Interactions **Stone and Koptur** (JG)
Tea	Tea	Tea	Tea	Tea
11:10-12:50	Papilionoid Systematics	Utilisation & Infraspecific Genetics	Developmental and Structural Morphology	Legume/Animal Interactions
Lunch	Lunch	Lunch	Lunch	Lunch
2:00-3:40	Papilionoid Systematics	Utilisation & Infraspecific Genetics	Developmental and Structural Morphology	Legume/Animal Interactions
Tea	Tea	Tea	Tea	Tea
4:00-5:40	Papilionoid Systematics	Utilisation & Infraspecific Genetics	Developmental and Structural Morphology	Legume/Animal Interactions
Evening				

For further information: visit the regularly updated conference web site at http://www.science.uts.edu.au/sasb/legumes.html

To register your interest in the conference, and to add your name to the address list for the registration brochure (to be mailed in February), contact:

Legumes Down Under 2001
Australian Convention & Travel Services (ACTS)
GPO Box 2200
Canberra ACT 2601
Australia

Telephone: (02) 6257 3299 (Int. +61 2)
Facsimile: (02) 6257 3256 (Int. +61 2)
Web site: www.ausconvservices.com.au
E-mail: legumes@ausconvservices.com.au

Organising committee

Mike Crisp
Jim Grimes
Joe Miller
David Morrison

The Rupert Barneby Award

James L. Luteyn

The New York Botanical Garden is pleased to announce that Gerry Allen currently a post-doctorate fellow at the Laboratory of Molecular Systematics, National Museum of Natural History, Smithsonian Institution is the recipient of the Rupert Barneby Award for the year 2000. Dr. Allen will be studying the Phylogenetic Systematics of *Lotus* (Papilionoideae) and other genera of the Loteae.

The New York Botanical Garden now invites applications for the Rupert Barneby Award for 2001. The award of US$ 1,000 is to assist researchers to visit The New York Botanical Garden to study the rich collection of *Leguminosae*. Anyone interested in applying for the award should submit their curriculum vitae, a detailed letter describing the project for which the award is sought and the names of 2-3 referees. Travel to NYBG should be planned for sometime in 2001. The letter should be addressed to Dr. James L. Luteyn, Institute of Systematic Botany, The New York Botanical Garden, Bronx, NY 10458-5126 USA, and received no later than December 1, 2000. Announcement of the recipient will be made by December 15th.

Anyone interested in making a contribution to THE RUPERT BARNEBY FUND IN LEGUME SYSTEMATICS, which supports this award, may send his or her cheque, payable to The New York Botanical Garden, to Dr. Luteyn.

Legume (Fabaceae) Fruits and Seeds: A new CD-ROM Publication

Joseph H. Kirkbride, Jr., Charles R. (Bob) Gunn, Anna L. Weitzman, and Michael J. Dallwitz

This CD-ROM, containing a worldwide database of legume genera, was published in March of 2000. Fruit and seed morphology and distributions are recorded for each legume genus, and images are attached. The interactive software system INTKEY, developed at CSIRO, is used for accessing the data and images. This package can be used for identifying the genus of unknown fruit or seed samples or for querying the fruit and seed data and images for legume genera.

Six hundred and eighty six legume genera are accepted. For each genus, 157 fruit characters, 127 seed characters, seven distribution characters, 11 metadata characters, and notes are recorded. Images are attached to 204 characters to aid in the interpretation and selection of character states, and 1,377 images are attached to the genera to help in their identification and the verification of identifications.

At the time of publication, the latest version of the Intkey software, under license from CSIRO, was placed on the CD-ROM for use with the data and images on the CD-ROM. The license also entitles the owner of the CD-ROM to upgrade the Intkey software for use with the CD-ROM. Since then, there have been significant improvements in Intkey. The latest version of Intkey can be downloaded from the following Internet address: http://www.biodiversity.uno.edu/delta/win32/intk32.exe. Owners of the CD-ROM should download this software, and install it on their PC.

To access the CD-ROM, start the Intkey program on the PC. The 'Select data set' window will appear. Click on the

'Browse...' button at the bottom of the window. Locate the CD-ROM on the PC, and view the contents of the folder (directory) 'data' on the CD-ROM. Open the file 'intkey.ini' which will start the reading of the legume fruit and seed data and display the title image. Click on 'OK' to close the title image, and Intkey with title and author windows will appear. Unfortunately the title and author windows will display incorrectly. Click on the drop-down menu 'Window', and then 'Close All' which will shut the title and author windows. This is the only known incompatibility between the CD-ROM and the latest version of Intkey. The new Intkey interface is much more user friendly. Four panes are displayed: the upper-left pane shows the available characters in best order for separating the remaining genera; the lower-left pane shows the characters and their states already used; the upper-right pane shows the genera remaining; and, the lower-right pane shows the genera eliminated. The increased ease of use far out weighs the incorrect display of the title and author windows.

Always begin each identification by clicking on either the 'Identify fruits (including seeds)' or the 'Identify seeds' button for identifying either fruits or seeds, respectively. This step is essential because all legume genera are represented in the database, so a few genera have no fruit or seed data.

The CD-ROM, ISBN: 1-887905-25-1, is available from the publisher: Parkway Publishers, Inc., P.O. Box 3678, Boone, NC 28607, USA, Phone and FAX: 828-265-3993, Toll Free in USA: 800-821-9155, and E-mail: sales@parkwaypublishers.com. Each copy is US$75.00 plus US$5.00 handling and shipping within the USA or US$10.00 outside of the USA.

KRweb - Kew Record on the Internet

The Royal Botanic Gardens, Kew, has launched a web-based version of the Kew Record of Taxonomic Literature. This valuable resource, which is also available as a printed quarterly publication from the Stationery Office, lists references to all publications relating to the taxonomy of flowering plants, gymnosperms and ferns along with references to phytogeography, nomenclature, chemotaxonomy, molecular taxonomy chromosome surveys, floras and botanical institutions; papers of taxonomic interest in the fields of anatomy and morphology, palynology , embryology and reproductive biology are also included along with relevant bibliographies and biographies. The database currently contains some 175 thousand references published from 1971 to 2000 with new references being added once a week. The Kew Record can be accessed at:
http://www.rbgkew.org.uk/kr/KRHomeExt.html
The printed quarterly publication, ISSN 0307-2835, is available from The Stationery Office
http://www.thestationeryoffice.com

The International Plant Names Index (IPNI)

The International Plant Names Index (IPNI) is a database of the names and associated basic bibliographical details of all seed plants. Its goal is to eliminate the need for repeated reference to primary sources for basic bibliographic information about plant names. The data are freely available and are gradually being standardized and checked. IPNI will be a dynamic resource, depending on direct contributions by all members of the botanical community.

IPNI is the product of a collaboration between The Royal Botanic Gardens, Kew, The Harvard University Herbaria, and the Australian National Herbarium. It can be found at http://www.ipni.org

Nodulation and Nitrogen Fixation

(Legume Nodulation reports not in Allen and Allen (1981))

Joseph H. Kirkbride, Jr.

Taxon	Status [1]	Source [2]
Abarema filamentosa (Benth.) Pittier	+	8
Abarema jupunba (Willd.) Britton & Killip	+	8
Abarema mataybifolia (Sandw.) Barneby & Grimes	+	16
Acacia alpina F. Muell.	+	4
Acacia aulacocarpa A. Cunn. ex Benth.	+	1
Acacia bahiensis Benth.	+	8
Acacia brevispica Harms	-	15
Acacia crassicarpa A. Cunn. ex Benth.	+	1

Taxon	Status [1]	Source [2]
Acacia leptocarpa A. Cunn. ex Benth.	+	1
Acacia martii Benth.	+	8
Acacia nilotica (L.) Willd. ex Delile ssp. *cupressiformis* (J.L. Stewart) Ali & Faruqi	+	3
Acacia nilotica (L.) Willd. ex Delile ssp. *hemispherica* Ali & Faruqi	+	3
Acacia obliquinervia Tind.	+	4
Acacia pendula A. Cunn. ex G. Don	+	14
Acacia retinodes Schltdl.	+	14
Acacia riparia Kunth	-	8
Acacia terminalis (Salisb.) J.F. Macbr.	+	4
Acosmium bijugum (Vog.) Yakovl.	+	8
Acosmium dasycarpum (Vog.) Yakovl.	-	8
Acosmium lentiscifolium Schott	-	7
Aeschynomene afraspera J. Léonard	+	5
Afzelia rhomboidea (Blanco) S. Vidal	-	1
Albizia multiflora (Kunth) Barneby & Grimes	+	17
Alexa wachenheimii Benoist	+	16
Alysicarpus heterophyllus (Baker) Jafri & Ali	+	3
Ammopiptanthus mongolicus (Maxim. ex Kom.) S.H. Chang	+	12
Anadenanthera colubrina (Vell.) Brenan	+	19
Anadenanthera macrocarpa (Benth.) Brenan = A. *Anadenanthera colubrina* (Vell.) Brenan var. cebil (Griseb.) Altschul (ed. note)	+	11
Andira fraxinifolia Benth.	+	7
Andira frondosa Benth.	+	7
Andira legalis (Vell.) Toledo	+	7
Andira pisonis Mart.	+	8
Andira coriacea Pulle	+	16
Arapatiella psilophylla (Harms) Cowan	-	8
Archidendron clypearia (Jack) I.C. Nielsen	+	1
Archidendron ellipticum (Blume) I.C. Nielsen	+	1
Archidendron scutiferum (Blanco) I.C. Nielsen	+	1
Argyrolobium roseum (Cambess.) Jaub. & Spach	+	2
Astragalus ammodytes Pall.	+	12
Astragalus bolanderi A. Gray	+	22
Astragalus dschimensis Gontsch.	+	12
Astragalus hypogaeus Ledeb.	+	12
Astragalus karkarensis Popov.	+	12
Astragalus lasiophyllus Ledeb.	+	12
Astragalus lehmannianus Bunge	+	12
Astragalus oxyglottis Steven ex M. Bieb.	+	12
Astragalus saccocalyx Shrenk ex Fisch.	+	12
Astragalus steinbergianus Sumnev.	+	12
Astragalus stenocerus C.A. Mey.	+	12
Astragalus hosackioides Benth. ex Baker	+	13
Astragalus psilocentros Fisch.	+	13
Astragalus trichocarpus Grah.	+	13
Astragalus whitneyii A. Gray	+	22
Ateleia herbert-smithii Pittier	+	20
Ateleia ovata Mohlenbr.	+	14
Baphia massaiensis Taub.	+	20
Barnebydendron riedellii (Tul.) J.H. Kirkbr.	-	7
Bauhinia acuruana Moric.	-	8
Bauhinia angulosa Vog. var. *densiflora* Benth.	-	8
Bauhinia conwayi Rusby	-	8
Bauhinia longifolia (Bong.) Steud.	-	8
Bocoa mollis (Benth.) Cowan	-	8
Bocoa prouacensis Aubl.	-	16
Bowdichia virgilioides Kunth	+	11
Brodriguesia santosii Cowan	-	8
Cadia ellisiana Baker	+	20

Taxon	Status [1]	Source [2]
Cadia purpurea (G. Piccioli) Aiton	+	20
Caesalpinia echinata Lam.	-	7
Caesalpinia ferrea Mart. var. *leiostachya* Benth.	-	7
Caesalpinia ferrea Mart. var. *parvifolia* Benth.	-	7
Caesalpinia latisiliqua (Cav.) Hattink	-	1
Caesalpinia peltophoroides Benth. = C. *pluriosa* DC. var. *peltophoroides* (Benth.) G.P. Lewis (ed. note)	-	7
Caesalpinia pulcherrima (L.) Sw.	+	3
Cajanus mollis (Benth.) van der Maesen	+	13
Callerya megasperma (F. Muell.) Schott	+	14
Calliandra bella Benth.	-	8
Calliandra erubescens Renv.	+	8
Camptosema coriaceum (Nees & Mart.) Benth.	+	8
Camptosema pedicellatum Benth.	+	8
Caragana korshinskii Kom.	+	12
Cassia ferruginea (Schrad.) Schrad. ex DC.	-	7
Cassia leptophylla Vog.	-	7
Cassia roxburghii DC.	+	3
Cassia spruceana Benth.	-	16
Cedrelinga cateniformis (Ducke) Ducke	+	6
Cenostigma gardnerianum Tul.	-	8
Centrolobium robustum (Vell.) Benth.	+	11
Centrolobium tomentosum Benth.	+	7
Centrosema arenarium Benth.	+	8
Chaetocalyx scandens (L.) Urb.	-	8
Chamaecrista aspleniifolia (H.S. Irwin & Barneby) H.S. Irwin & Barneby	-	7
Chamaecrista ciliolata (Benth.) H.S. Irwin & Barneby	+	8
Chamaecrista cytisoides (Collad.) H.S. Irwin & Barneby var. *blanchetii* (Benth.) H.S. Irwin & Barneby	+	8
Chamaecrista dentata (Vog.) H.S. Irwin & Barneby	+	8
Chamaecrista duartei (H.S. Irwin) H.S. Irwin & Barneby	+	8
Chamaecrista nictitans (L.) Moench var. *pilosa* (Benth.) H.S. Irwin & Barneby	+	8
Chamaecrista ramosa (Vog.) H.S. Irwin & Barneby	+	8
Chamaecrista repens (Vog.) H.S. Irwin & Barneby	+	8
Chloroleucon dumosum (Benth.) G.P. Lewis	+	8
Chorizema diversifolium A.DC.	+	14
Christa obcordata (Poir.) Bakh.f.	+	1
Cleobulia multiflora Mart. ex Benth.	+	8
Clitoria fairchildiana R. Howard	+	17
Copaifera langsdorffii Desf.	-	7
Copaifera lucens Dwyer	-	8
Copaifera trapezifolia Hayne	-	7
Cranocarpus martii Benth.	+	8
Crotalaria holosericea Nees & Mart.	+	8
Crotalaria medicaginea Lam. var. *neglecta* (Wright & Arn.) Bak.	+	3
Crotalaria medicaginea Lam. var. *medicaginea*	+	3
Crotalaria triquetra Dalz.	+	1
Crudia aromatica Aubl.	-	16
Crudia bracteata Benth.	+	16
Cytisus villosus Pourr.	+	14
Dalbergia ecastaphyllum (L.) Taub.	+	8
Dalbergia glaucescens (Benth.) Benth.	+	7
Dalbergia nigra (Vell.) Allemão ex Benth.	+	11
Dalbergia retusa Hemsl.	+	14
Dalea cliffortiana Willd.	+	1
Dendrolobium triangulare (Retz.) Schindl.	+	14
Derris robusta (DC.) Benth.	+	14
Desmodium dichotomum (Willd.) DC.	+	14
Desmodium sequax Wall.	+	1

Taxon	Status [1]	Source [2]
Desmodium styracifolium (Osbeck) Merr.	+	1
Desmodium zonatum Miq.	+	1
Dialium guianense (Aubl.) Sandwith	-	7
Dicorynia guianensis Amsh.	-	16
Dillwynia glaberrima Smith	+	14
Dimorphandra exaltata Schott	+	11
Dioclea sericea Kunth	+	14
Diphysa robinioides Benth.	+	8
Diplotropis incexis Rizz.	+	7
Diptychandra aurantiaca Tul. ssp. *epunctata* (Tul.) H.C. de Lima, Carvalho & Costa	-	8
Dolichos junghuhnianus Benth.	+	14
Dunbaria circinalis (Benth.) Baker	+	14
Dunbaria nivea Miq.	+	14
Dysolobium apioides (Gapnepain) Maréchal	+	14
Entada polyphylla Benth.	+	17
Enterolobium monjollo Benth.	-	7
Enterolobium schomburgkii (Benth.) Benth.	+	7
Enterolobium timbouva Mart.	+	17
Eremosparton songorium (Litv.) Vassilcz.	+	12
Eriosema heterophyllum Benth.	+	8
Eriosema violaceum (Aubl.) G. Don	+	14
Erythrina costaricensis M. Micheli	+	14
Erythrina falcata Benth.	+	9
Erythrina vespertilio Benth.	+	14
Falcataria moluccana (Miq.) Barneby & Grimes	+	7
Flemingia congesta Roxb. ex W.T. Aiton	+	14
Flemingia fruticulosa Wall. ex Benth.	+	13
Galactia latisiliqua Desv.	+	14
Glycyrrhiza inflata Batalin	+	12
Glycyrrhiza korshinskyi Grigor.	+	12
Goniorrhachis marginata Taub.	-	7
Goodia lotifolia Salisb.	+	14
Grazielodendron rio-docensis H.C. de Lima	-	7
Gueldenstaedtia stenophylla Bunge	+	14
Gueldenstaedtia verna Georgi	+	13
Harleyodendron unifoliolatum Cowan	-	8
Hedysarum scoparium Fisch. & C.A. Mey.	+	12
Hesperolaburnum platycarpum (Maire) Maire	+	14
Hovea linearis (Sm.) R.Br.	+	14
Hymenaea aurea Y.T. Lee & Langenh.	-	7
Hymenaea courbaril L. var. *stilbocarpa* (Hayne) Y.T. Lee & Langenh.	-	7
Hymenaea eriogyne Benth.	-	8
Hymenaea martiana Hayne	-	8
Hymenaea rubriflora Ducke var. *rubriflora*	-	7
Hymenaea stigonocarpa Hayne	-	8
Hymenolobium alagoanum Ducke var. *alagoanum*	+	8
Hymenolobium alagoanum Ducke var. *parvifolium* H.C. de Lima	+	7
Hymenolobium janeirense Kuhlm.	+	8
Hymenolobium flavum Kleinh.	+	16
Inga acrocephala Steud.	+	16
Inga alba (Swartz) Willd.	+	16
Inga aptera (Vinha) T.D. Penn.	+	8
Inga blanchetiana Benth.	+	8
Inga capitata Desv.	+	7
Inga cayennensis Sagot ex Benth.	+	16
Inga fanchoniana O. Poncy	+	16
Inga graciliflora Benth.	+	16
Inga gracilifolia Ducke	+	16
Inga huberi Ducke	+	16

Taxon	Status [1]	Source [2]
Inga jenmanii Sandw.	-	16
Inga leiocalycina Benth.	+	16
Inga lomatophylla Benth.	-	16
Inga marginata Willd.	+	8
Inga mortoniana J. León	+	14
Inga nourgensis O. Poncy	-	16
Inga paraensis Ducke	+	16
Inga sessilis (Vell.) Mart.	+	11
Inga splendens Willd.	+	16
Inga stipularis DC.	+	16
Inga striata Benth.	+	7
Inga subnuda Salzm. ex Benth.	+	8
Inga subnuda Salzm. ex Benth. ssp. *luschnathiana* (Benth.) T.D. Penn.	+	7
Inga tubaeformis Benoist	+	16
Inga vera Willd. ssp. *affinis* (DC.) T.D. Penn.	+	8
Lathyrus emodii (Wall. ex Fritsch) Ali	+	2
Lathyrus nevadensis S. Watson	+	22
Leucaena trichodes (Jacq.) Benth.	+	14
Lonchocarpus costatus Benth.	+	7
Lonchocarpus guilleminianus (Tul.) Malme	+	7
Luetzelburgia bahiensis Yakovl.	-	8
Lupinus angustiflorus Eastw.	+	22
Lupinus arbustus Douglas ex Lindl.	+	22
Lupinus breweri A. Gray	+	22
Lupinus fulcratus Greene	+	22
Lupinus hirsutissimus Benth.	+	20
Maackia amurensis Rupr. & Maxim.	+	20
Machaerium fulvovenosum H.C. de Lima	-	7
Machaerium incorruptibile (Vell.) Benth.	+	11
Machaerium nictitans (Vell.) Benth.	+	11
Machaerium pedicellatum Vog.	+	8
Machaerium salzmannii Benth.	-	8
Machaerium villosum Vog.	+	11
Macrolobium latifolium Vog.	-	7
Macroptilium martii (Benth.) Maréchal & Baudet	+	8
Medicago cancellata M. Bieb.	+	14
Medicago medicaginoides (Retz.) E. Small	+	12
Medicago monantha (C.A. Mey) Trautv.	+	3
Medicago orthoceras (Kar. & Kir.) Trautv.	+	12
Medicago papillosa Boiss.	+	14
Melanoxylon brauna Schott	+	7
Mimosa acutistipula Benth.	+	17
Mimosa arenosa (Willd.) Poiret	+	17
Mimosa blanchetii Benth.	+	8
Mimosa brachycarpa Benth.	+	8
Mimosa calodendron Mart. ex Benth.	+	8
Mimosa diplotricha C. Wright ex Sauvalle var. *diplotricha*	+	1
Mimosa filipes Mart.	+	8
Mimosa mensicola Barneby	+	8
Mimosa pellita Willd.	+	8
Mimosa velloziana Mart.	+	8
Mimosa verrucosa Benth.	+	8
Mirbelia pungens G. Don	+	14
Moldenhawera floribunda Schrad.	+	7
Myrocarpus fastigiatus Allemão	-	7
Ormosia arborea Harms	+	7
Ormosia fastigiata Tul.	+	8
Ormosia nitida Vog.	+	7
Ormosia melanocarpa Kleinh.	+	16

Taxon	Status [1]	Source [2]
Ormosia nobilis Tul. var. *bolivarensis* Rudd	+	16
Oxylobium ellipticum (Vent.) R.Br.	+	14
Oxytropis halleri Bunge ex W.D.J. Koch	+	14
Oxytropis mollis Royle	+	13
Pachyrhizus tuberosus (Lam.) Spreng.	+	14
Paramachaerium ormosioides (Ducke) Ducke	+	16
Parapiptadenia pterosperma (Benth.) Brenan	+	7
Paraserianthes falcataria (L.) I.C. Nielsen = *Falcataria moluccana* (Miq.) Barneby and Grimes (ed. note)	+	1
Parkia multijuga Benth.	+	18
Peltogyne angustiflora Ducke	-	7
Peltophorum dubium (Spreng.) Taub.	-	8
Periandra coccinea (Schrad.) Benth.	+	8
Periandra mediterranea (Vell.) Taub.	+	8
Pericopsis mooniana (Thwaites) Thwaites	+	20
Phaseolus leptostachyus Benth.	+	14
Phyllodium elegans (Lour.) Desv.	+	14
Piptadenia cobi Rizz. & A. Matt. = *Stryphnodendron pulcherrimum* (Willd.) Hochr. (ed. note)	-	7
Piptadenia gonoacantha (Mart.) J.F. Macbr.	+	11
Piptadenia stipulacea (Benth.) Ducke	+	21
Piptadenia viridiflora (Kunth) Benth.	+	8
Pithecellobium pedicellare (DC.) Benth. = *Albizia pedicellaris* (DC.) L. Rico (syn., *Baliza pedicellaris* (DC.) Barneby and Grimes) (ed. note)	+	7
Pithecellobium racemosum Ducke	+	18
Platymenia reticulata Benth.	+	7
Platymiscium floribundum Vog.	+	7
Platymiscium speciosum Vog.	+	8
Platypodium elegans Vog.	+	11
Poecilanthe falcata (Vell.) Heringer	+	7
Poecilanthe hostmanii (Benth.) Amsh.	+	16
Poecilanthe ulei (Harms) Arroyo & Rudd	+/-	8
Poeppigia procera C. Presl	-	7
Poiretia punctata (Willd.) Desv.	+	8
Pseudopiptadenia contorta (DC.) G.P. Lewis & M.P. Lima	+	7
Pseudopiptadenia suaveolens (Miq.) Grimes	-	16
Pseudosamanea guachepele (Kunth) Harms	+	11
Psoralea plumosa F. Muell.	+	14
Psoralea pustulata F. Muell.	+	14
Pterocarpus rohrii Vahl	-	8
Pterocarpus violaceus Vog.	-	7
Pterodon abruptus (Moric.) Benth.	-	8
Pueraria phaseoloides (Roxb.) Benth. var. *javanica* (Benth.) Baker	+	1
Pultenaea blakelyi J. Thompson	+	14
Pycnospora lutescens (Poir.) Schindl.	+	14
Retama raetam (Forssk.) Webb	+	20
Rhynchosia pseudocajan Cambess.	+	13
Samanea inopinata (Harms) Barneby & Grimes	+	8
Sclerolobium albiflorum Benoist	+	16
Sclerolobium densiflorum Benth.	+	8
Sclerolobium melinonii Harms	+	16
Senna appendiculata (Vog.) Wiersema	-	8
Senna cana (Nees & Mart.) H.S. Irwin & Barneby	-	8
Senna gardneri (Benth.) H.S. Irwin & Barneby	-	8
Senna macrantha (Collad.) H.S. Irwin & Barneby	-	8
Senna macrantha (Colladon) H.S. Irwin & Barneby var. *micans* (Nees) H.S. Irwin & Barneby	-	7
Senna multijuga (L. Rich.) H.S. Irwin & Barneby var. *verrucosa* (Vog.) H.S. Irwin & Barneby	+	7

Taxon	Status [1]	Source [2]
Senna pinheiroi H.S. Irwin & Barneby	-	8
Senna purpurea (Roxb. ex Lindl.) Roxb.	+	3
Senna reniformis (G. Don) H.S. Irwin & Barneby	-	8
Senna spectabilis (DC.) H.S. Irwin & Barneby	-	8
Senna quinquangulata (L.C. Rich.) H.S. Irwin & Barneby	+	16
Sesbania concolor Gillett	+	3
Sesbania sesban (L.) Merr. var. *sesban*	+	10
Sesbania virgata (Cav.) Pers.	+	17
Sophora alopecuroides L.	+	12
Sophora tetraptera J.F. Mill.	+	20
Sophora tomentosa L. ssp. *occidentalis* (L.) Brummitt	+	20
Sophora velutina Lindl.	+	20
Sphaerophysa salsula (Pall.) DC.	+	12
Stryphnodendron polystachyum (Miq.) Kleinh.	+	16
Stryphnodendron pulcherrimum (Willd.) Hochr.	-	8
Stylosanthes guianensis (Aubl.) Sw. var. *gracilis* (Kunth) Vog.	+	1
Stylosanthes scabra Vog.	+	8
Swainsona forrestii F. Muell. ex A.T. Lee	+	14
Swartzia acutifolia Vog.	+	7
Swartzia arborescens (Aubl.) Pittier	+	16
Swartzia bahiensis Cowan	+	8
Swartzia flaemingii Raddi	+	7
Swartzia guianensis Aubl.	+	16
Swartzia langsdorffii Raddi	+	11
Swartzia macrostachya Benth.	+/-	8
Swartzia myrtifolia J.E. Smith var. *elegans* (Schott) Cowan	-	7
Swartzia panacoco (Aubl.) Cowan	+	16
Sweetia fruticosa Spreng.	-	7
Tachigali multijuga Benth.	+	11
Tamarindus indica L.	+	3
Tephrosia obovata Merr.	+	1
Tephrosia rosea F. Muell. ex Benth.	+	14
Tephrosia uniflora Pers. ssp. *petrosa* (Blatter & Hallberg) Gillett & Ali	+	3
Teyleria koordersii (Backer) Backer	+	14
Vatairea erythrocarpa (Ducke) Ducke	-	16
Vataireopsis araroba (Aguiar) Ducke	-	7
Vigna caracalla (L.) Verdc.	+	14
Vigna cylindrica (L.) Skeels	+	14
Vigna glabrescens Maréchal, Mascerpa and Stainier	+	14
Vigna minima (Roxb.) Ohwi & H. Ohashi	+	14
Vigna parkeri Baker	+	14
Virgilia divaricata Adamson	+	14
Vouacapoua americana Aubl.	-	16
Vouacapoua pallidior Ducke	+	6
Xanthoceris madagascariensis Baill.	+	19
Zollernia glabra (Spreng.) Yakovl.	-	7
Zollernia ilicifolia (Brongn.) Vog.	-	7
Zornia diphylla (L.) Pers.	+	1
Zygia racemosa (Ducke) Barneby & Grimes	-	16

[1] Status: +, root nodules reported as present; -, root nodules reported as absent.

[2] Source:

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GLEANINGS

Ed. Note: Names in all capital letters are Bean Bag Readers. Their full names and addresses are listed in the November 1999 Bean Bag Directory available on the www server of the Royal Botanic Gardens, Kew, United Kingdom. **See "From the Editor" for the URL.**

AGUILAR is undertaking morphological studies of legume seeds in the Philippines and needs tropical legume seeds. She offers herbarium specimens of Phillipine legumes in exchange.

ALBUQUERQUE continues to work on medicinal legumes on which subject she would like to receive information and offers information about Amazonian legumes in exchange.

ANULOV is working on the chemotaxonomy of Leguminosae and needs legume seeds to continue this work. Reprints and seeds of temperate legumes are offered in exchange.

BRETELER is working on the taxonomy of *Cynometra* and related genera (Caesalpinioideae - Detarieae).

BROCKWELL is reviewing the symbiosis between *Acacia* and *Rhizobia* and needs seeds of *Medicago lacinata* from any country other than Australia. He offers seeds of Australian *Acacia* species in exchange.

CORBY is studying the germination of Leguminous seeds and with D.L. Smith is studying the endosperm of Leguminous seeds.

ESPINOSA is studying the effects of interplanting *Lupinus mutabilis*, *Lupinus silvestris* and *Zea mays* on their growth and acquistion of phosphorous and the effects of interplanting *Lupinus mutabilis* with *Sorghum* on their growth and acquistion of iron.

FORTUNE-HOPKINS is undertaking a molecular systematic study of *Parkia* using ITS and *trn*L and would like to receive silica-dried material of any Parkia species with a herbarium voucher.

KIRKBRIDE is preparing a publication of legume nodulation reports, and has reports for approximately 4,200 legume taxa. His work is based on the monumental publication by Allen and Allen in 1981, *The Leguminosae: A source book of characteristics, uses, and nodulation.* His publication will only include the nodulation reports and their references. This work is part of ILDIS and will also be available from the ILDIS database. Using the USDA National Agricultural Library resources, he has attempted to locate all new legume nodulation reports since 1979. His discoveries have been published in *The Bean Bag*. Please send new legume nodulation reports not included in Allen and Allen or KIRKBRIDE's *Bean Bag* articles to KIRKBRIDE as soon as possible.

KIRKBRIDE will resume his much delayed monograph of *Lotus* subgen. *Pedrosia* following completion of his legume nodulation publication.
KIRKBRIDE, GUNN, Anna L. Weitzman, and Michael J. Dallwitz are continuing the publication process for their study of the fruits and seeds of all Faboideae genera. The USDA, ARS Information Staff is handling the publication. The manuscript has been reviewed and changed, and is ready for printing. The illustrative materials are now being worked on. It will probably be published in late 2001, and every *Bean Bag* Reader will receive a free copy.

KIRKBRIDE, GUNN, Anna L. Weitzman, Michael J. Dallwitz, and Leslie A. Gilbert completed and published their DELTA database describing the fruits and seeds of all legume genera. See the preceeding article, "Legume (Fabaceae) Fruits and Seeds".

KRAMINA is working on the taxonomy of the genus *Lotus* L.

LOBANOVA is studying the biochemistry, physiology, ecology and evolution of galactomannans in Siberian legumes. She needs seeds from different habitats and offers seeds of Siberian legumes in exchange.

LOZANO needs collections of *Macherium* from the neotropics and offers seeds of *Machaerium* in exchange.

MAXWELL is working again in Diolceinae. He has finished his genera in the Flora of Venezuelan Guayana, Vol.5 and the Flora de Nicaragua, working on other past commitments, especially new species and notes in the genus *Dioclea*.

MENDONÇA FILHO is still in need of fruits of any species of *Machaerium* (Leg. Pap): live (for germination) and/or dry. He offers in exchange identifications of *Machaerium* or possibly herbarium specimens from Minas Gerais-Brasil.

MENKE is preparing an account of the Leguminosae for the (revised) Flora of San Francisco County, California.

Phan Kê Lôc and VIDAL have completed a revision of the Millettieae for the Flore du Camboge, du Laos et du Vietnam (Vol 30), which is undergoing final editorial work and will be sent for printing at the end of November 2000.

PIERGIOVANNI with Nenno Are maintaining a germplasm database on Italian landraces of *Phaseolus vulgaris* L. It is available on the World Wide Web at: http://www.ba.cnr.it/~germap14/ilb/. They offer and need seed material of the same.

ROSCOV is developing a virtual herbarium of Legume type specimens at the Komarov Botanical Institute, Russian Acacdemy of Sciences, St Petersburg (LE).

ROSCOV, SYTIN, YAKOVLEV and S. Jezniakovsky are starting work on a project to produce interactive keys for the legumes of the Russian flora.

SANJAPPA is working on the Flora of India, volume 6:(Caesalpinioideae, Mimosoideae and Papilionoideae (in part)) and volume 7: (Papilionoideae (in part)). Herbarium material of *Cochlianthus*, *Dalhousiea*, *Eleiotis* and *Leptodesmia* is required and herbarium material of Indian legumes are offered in exchange.

SUSO is studying gene flow and pollen disperal in *Vicia faba* L.

TURNER is writing a book on the Legumes of Texas.

VANDERBORGHT is maintaining a *Phaseolus* - Phaseolinae collection, chiefly centred on wild *Phaseolus* and *Vigna* species. He offers and needs seed material of the same. A list of the 191 taxa included in the collection is available at: http://www.br.fgov.be/RESEARCH/COLLETIONS/LIVING/PHASEOLUS

VASSAL is working on the producing technical sheets on *Acacia seyal* Delile. and *Acacia senegal* Willd. and writing an introduction to a book on *Acacia tortilis* tortilis subsp. *raddiana* (Savi) Brenan

WEDER is working on a project to identify legumes to species using molecular techniques (RAPD - PCR).

WESTON with CRISP, CHAPPILL, de Kok et al. are developing a LUCID identifiation system for Australian legumes.

RECENT LEGUME LITERATURE

Ed. Note: Authors names in all capital letters are Bean Bag Readers. Their full names and addresses are listed in the Nov. 2000 Bean Bag Directory which will be available (shortly) on the www server of the Royal Botanic Gardens, Kew, United Kingdom. **See "From the Editor" for the URL.** All correspondance should be addressed directly to them.

Abou-El-Enain, M.M. 1999. Chromosomal criteria and taxonomic relationships in the genus *Lathyrus* (Fabaceae). Taeckholmia 19(2): 193-201. Chromosome numbers.

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